

77 ✓

526 Rec'd PCT/PTO 13 NOV 2000

SEQUENCE LISTING

<110> The University of Queensland
 National Institute of Biological Standards and Control

<120> Novel anti-fibrinolytic agents

<130> Textilins

<140> PCT/AU99/0XXX
 <141> 1999-05-10

<150> AU PP3450
 <151> 1999-05-11

<160> 44

<170> PatentIn Ver. 2.0

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 Arg Val Arg Phe Pro Ser Phe Tyr Tyr Asn Pro Asp Glu Lys Lys Cys
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 cta gag ttt att tat ggt gga tgc gaa ggg aat gct aac aat ttt atc 144
 Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile
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aga gtc aga ttc cca tcc ttc tac tac aac cca gat gaa caa aaa tgc															96	
Arg	Val	Arg	Phe	Pro	Ser	Phe	Tyr	Tyr	Asn	Pro	Asp	Glu	Gln	Lys	Cys	
			20					25					30			
cta gag ttt att tat ggt gga tgc gaa ggg aat gct aac aat ttt atc															144	
Leu	Glu	Phe	Ile	Tyr	Gly	Gly	Cys	Glu	Gly	Asn	Ala	Asn	Asn	Phe	Ile	
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Leu Glu Phe Ile Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Ile
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Asn Ala Lys Ile Pro Arg Phe Tyr Tyr Asn Pro Arg Gln His Gln Cys
20 25 30
ata gag ttt ctc tat ggt gga tgc gga ggg aat gct aac aat ttt aag 144
Ile Glu Phe Leu Tyr Gly Gly Cys Gly Gly Asn Ala Asn Asn Phe Lys
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 Lys Gly Asn Val Pro Arg Phe Tyr Tyr Asn Ala Asp His His Gln Cys
 20 25 30
 cta aaa ttt att tat ggt gga tgt gga ggg aat gct aac aat ttt aag 144
 Leu Lys Phe Ile Tyr Gly Gly Cys Gly Gly Asn Ala Asn Asn Phe Lys
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 1 5 10 15
 gaa gac ttt acc gga gcc ttc cac tac agc aca cgt gat cgt gaa tgc 96
 Glu Asp Phe Thr Gly Ala Phe His Tyr Ser Thr Arg Asp Arg Glu Cys
 20 25 30
 ata gag ttt att tat ggt gga tgc gga ggg aat gct aac aat ttt atc 144
 Ile Glu Phe Ile Tyr Gly Gly Cys Gly Gly Asn Ala Asn Asn Phe Ile
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 gat gac ttt acc gga gcc ttc cac tac agc cca cgt gaa cat gaa tgc 96
 Asp Asp Phe Thr Gly Ala Phe His Tyr Ser Pro Arg Glu His Glu Cys
 20 25 30
 ata gag ttt att tat ggt gga tgc aaa ggg aat gct aac aac ttt aat 144

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Ile Glu Phe Ile Tyr Gly Gly Cys Lys Gly Asn Ala Asn Asn Phe Asn
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83
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gag gtg ctg acc ccc gtc tcc agc aag gac cgt ccg gat ttc tgt gaa 96
Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asp Phe Cys Glu
-5 -1 1 5

ctg cct gct gac acc gga cca tgt aga gtc aga ttc cca tcc ttc tac 144
Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
10 15 20

tac aac cca gat gaa aaa aag tgc cta gag ttt att tat ggt gga tgc 192
Tyr Asn Pro Asp Glu Lys Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
25 30 35 40

gaa ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240
Glu Gly Asn Ala Asn Asn Phe Ile Thr Lys Glu Glu Cys Glu Ser Thr
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Cys Ala Ala
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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Asp Phe Cys Glu
20 25 30

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Leu Pro Ala Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
 35 40 45

Tyr Asn Pro Asp Glu Lys Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
 50 55 60

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gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca gag ttg tgt gaa 96
 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu
 -5 -1 1 5

ctg cct cct gac acc gga cca tgt aga gtc aga ttc cca tcc ttc tac 144
 Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Phe Pro Ser Phe Tyr
 10 15 20

tac aac cca gat gaa caa aaa tgc cta gag ttt att tat ggt gga tgc 192
 Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
 25 30 35 40

gaa ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240
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 45 50 55

tgt gct gcc tga 252
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<400> 18

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 35 40 45
 Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile Tyr Gly Gly Cys
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 -5 -1 1 5
 ctg cct gct gaa acc gga cga tgt aat gcc aaa atc cca cgc ttc tac 144
 Leu Pro Ala Glu Thr Gly Arg Cys Asn Ala Lys Ile Pro Arg Phe Tyr
 10 15 20
 tac aac cca cgt caa cat caa tgc ata gag ttt ctc tat ggt gga tgc 192
 Tyr Asn Pro Arg Gln His Gln Cys Ile Glu Phe Leu Tyr Gly Gly Cys
 25 30 35 40
 gga ggg aat gct aac aat ttt aag acc att aag gaa tgc gaa agc acc 240
 Gly Gly Asn Ala Asn Asn Phe Lys Thr Ile Lys Glu Cys Glu Ser Thr
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Cys Ala Ala

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			20					25					30		

Leu	Pro	Ala	Glu	Thr	Gly	Arg	Cys	Asn	Ala	Lys	Ile	Pro	Arg	Phe	Tyr
		35					40					45			

Tyr	Asn	Pro	Arg	Gln	His	Gln	Cys	Ile	Glu	Phe	Leu	Tyr	Gly	Gly	Cys
	50					55					60				

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Cys Ala Ala

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gag	gtg	ctg	acc	ccc	gtc	tcc	agc	aag	gac	cat	cca	aaa	ttc	tgt	gaa	96
Glu	Val	Leu	Thr	Pro	Val	Ser	Ser	Lys	Asp	His	Pro	Lys	Phe	Cys	Glu	
			-5				-1	1				5				

ctc	cct	gct	gaa	acc	gga	tca	tgt	aaa	ggc	aac	gtc	cca	cgc	ttc	tac	144
Leu	Pro	Ala	Glu	Thr	Gly	Ser	Cys	Lys	Gly	Asn	Val	Pro	Arg	Phe	Tyr	
	10					15					20					

tac	aac	gca	gat	cat	cat	caa	tgc	cta	aaa	ttt	att	tat	ggt	gga	tgt	192
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81

Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys
 25 30 35 40
 gga ggg aat gct aac aat ttt aag acc ata gag gaa ggc aaa agc acc 240
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 35 40 45
 Tyr Asn Ala Asp His His Gln Cys Leu Lys Phe Ile Tyr Gly Gly Cys
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xii

Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
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 Leu Leu Pro Asp Thr Gly Ser Cys Glu Asp Phe Thr Gly Ala Phe His
 10 15 20
 tac agc aca cgt gat cgt gaa tgc ata gag ttt att tat ggt gga tgc 192
 Tyr Ser Thr Arg Asp Arg Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 25 30 35 40
 gga ggg aat gct aac aat ttt atc acc aaa gag gaa tgc gaa agc acc 240
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 45 50 55
 tgt gct gcc tga 252
 Cys Ala Ala
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 35 40 45
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gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca aag ttc tgt gaa 96
 Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Lys Phe Cys Glu
 -5 -1 1 5

ctg cct gct gac atc gga cca tgg gat gac ttt acc gga gcc ttc cac 144
 Leu Pro Ala Asp Ile Gly Pro Trp Asp Asp Phe Thr Gly Ala Phe His
 10 15 20

tac agc cca cgt gaa cat gaa tgc ata gag ttt att tat ggt gga tgc 192
 Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 25 30 35 40

aaa ggg aat gct aac aac ttt aat acc caa gag caa tgc gaa agc acc 240
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 Cys Ala Ala
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 20 25 30

Leu Pro Ala Asp Ile Gly Pro Trp Asp Asp Phe Thr Gly Ala Phe His
 35 40 45

Tyr Ser Pro Arg Glu His Glu Cys Ile Glu Phe Ile Tyr Gly Gly Cys
 50 55 60

Lys Gly Asn Ala Asn Asn Phe Asn Thr Gln Glu Gln Cys Glu Ser Thr
 65 70 75 80

Cys Ala Ala

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<212> DNA

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<223> Description of Artificial Sequence:degenerate

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XIV

sense primer

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atgaargaya grcchgaryt ngar

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antisense primer

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forward primer for Txln1

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reverse primer for Txln2

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32

<210> 32

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universal reverse primer

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short universal reverse primer

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<223> Description of Artificial Sequence: RACE-ready
nested universal reverse primer

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<223> Description of Artificial Sequence: Txln1-gene
specific forward primer

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atcagcggat ccatgtctgg aggt

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<220>
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gene-specific reverse primer

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xvi

<400> 36
tctcctgaat tctcaggcag cacaggt 27

<210> 37
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<223> Description of Artificial Sequence:Txln-active
peptide sequence forward primer

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forward primer for txln2

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forward primer for Txln3

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<210> 40
<211> 27
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<220>
<223> Description of Artificial Sequence:gene-specific
forward primer for Txln4

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<210> 41
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92
xvii

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:gene-specific
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27

<210> 42

<211> 27

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:gene-specific
forward primer for Txln6

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27

<210> 43

<211> 408

<212> DNA

<213> Pseudonaja textilis

<220>

<221> CDS

<222> (12)..(191)

<220>

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<222> (12)..(83)

<220>

<221> mat_peptide

<222> (84)..(191)

<400> 43

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 Met Ser Ser Gly Gly Leu Leu Leu Leu Leu Gly Leu Leu
 -20 -15

acc ctc tgg gag gtg ctg acc ccc gtc tcc agc aag gac cgt cca gag 98
 Thr Leu Trp Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu
 -10 -5 -1 1 5

ttg tgt gaa ctg cct cct gac acc gga cca tgt aga gtc aga tcc cca 146
 Leu Cys Glu Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Ser Pro
 10 15 20

tcc ttc tac tac aac cca gat gaa caa aaa tgc cta gag ttt att 191
 Ser Phe Tyr Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile
 25 30 35

tatggtggat gcgaaggga tgctaaccac ttttatcacc aaagaggaat gcgaaagcac 251

94 xviii

ctgtgctgcc tgaatgagga gaccctcctg gattggatcg acagttccaa cttgacccaa 311
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<210> 44
<211> 60
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Glu Val Leu Thr Pro Val Ser Ser Lys Asp Arg Pro Glu Leu Cys Glu
          -5                      -1      1                      5

Leu Pro Pro Asp Thr Gly Pro Cys Arg Val Arg Ser Pro Ser Phe Tyr
    10                      15                      20

Tyr Asn Pro Asp Glu Gln Lys Cys Leu Glu Phe Ile
    25                      30                      35

```